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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/806,404	03/23/2004	Kazunobu Shimoe	36856.1239	2300
35510	7590	12/29/2004	EXAMINER	
KEATING & BENNETT, LLP			BUDD, MARK OSBORNE	
10400 EATON PLACE			ART UNIT	
SUITE 312			PAPER NUMBER	
FAIRFAX, VA 22030			2834	

DATE MAILED: 12/29/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/806,404

Applicant(s)

SHIMOE ET AL.

Examiner

Mark Budd

Art Unit

2834

mb

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 10-22 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 13,15,18,19,21 and 22 is/are allowed.
- 6) ☒ Claim(s) 10-12,14,16 and 20 is/are rejected.
- 7) ☒ Claim(s) 17 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 March 2004 is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☒ Certified copies of the priority documents have been received in Application No. 10/025,901.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>3-23-04</u> . | 6) <input type="checkbox"/> Other: ____. |

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 10, 14 and 20 are rejected under 35 U.S.C. 102(b) as being anticipated by Takoshima.

Takoshima (figs. 1 and 2) teaches a piezoelectric substrate (#12, electrodes for surface acoustic wave elements #13, a wiring electrode (not numbered) connecting the SAW electrodes #13 to bonding pad #14. Bonding pad #14 has three layers (14a, 14b, 14c). Note that “etched metal film and formed by a lift-off process” are considered to be method of manufacturing limitations and as such are not given patentable weight in an apparatus claim. Note col. 3, lines 43-53 of Takoshima does discuss etching. Both etching and lift-off methods are known per se for forming electrodes on a piezoelectric element (official notice taken).

Claim 16 is rejected under 35 U.S.C. 102(b) as being anticipated by Japan (943).

Note Japan (943) figures 104 which show a piezoelectric substrate #11, SAW electrodes 112, 115, wiring electrodes #17 and bonding pads #16.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Takoshima in view of Japan (943).

Takoshima as previously discussed does not teach the wiring electrode and top layer of the bonding pad as part of the same conductive layer. However, Japan (943), note e.g. fig. 2, clearly teaches making these two parts integral. Such integral construction could have manufacturing advantages. Thus to use such a construction in Takoshima would have been obvious to one of ordinary skill in the art.

Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Takoshima in view of Europe (905).

Takoshima teaches the basic SAW structure including driving electrodes, wiring electrodes and a multi-layer bonding electrode (pad). Tokoshima does not provide a separate adhesive layer. However, Europe (905) teaches using an extra adhesive layer to obtain greater peel-off strength for the electrode layer. Thus, for at least this reason it would have been obvious to one of ordinary skill in the art to provide Takoshima with an adhesive layer between the electrodes and the piezoelectric material.

Claim 17 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 13, 15, 18, 19, 21 and 22 are allowed.

Further cited of interest are Hori and Nakashima.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mark O. Budd whose telephone number is (571)272-2019. The examiner can normally be reached on Monday-Thursday from 6am to 4pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nestor R. Ramirez, can be reached on ***. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Budd/ds

12/22/04

MARK O. BUDD
EXAMINER